Differences ARCADIS Systems installed Base – new Generation

The new ARCADIS generation offers some completely new features, other features were changed or improved due to customer requirements. For detailed information about all features and functionalities please refer to the operating manual.

This file should give an overview over the changes out of the application´s point of view. Some of the features and functionalities are options and might not be available on your customer´s system. The pricebook gives some more information about options.

Monitor trolley

General design

Mechanical Parameters	ARCADIS	Next ARCADIS Gen.	Reduction
Height (Keyboard Surface) [cm / inch]	122,5 / 48,2	101 / 39,8	18%
Width (Wheel Base) [cm / inch]	83 / 32,7	65 / 25,6	22%
Depth (Wheel Base) [cm / inch]	79,5 / 31,3	73 / 28,7	8%
Footprint (Width x Depth) [m2 / ft²]	0,66 / 7,10	0,47 / 5,05	29%

Installed base:

New Generation:

Note: The integrated navigation solution “NaviVision” still requires the higher monitor trolley. Therefor there is no possibility to upgrade a system of the new generation to a NaviVision system retrospectively.

Centralized footbrake

Instead of one brake on either side of the trolley only one tip on a centralized brake is necessary now to fix or release the entire trolley.
Step on the footbrake in order to lock it or hoist it in order to unlock it.

X-ray indicators

The big x-ray indicator is now located on top of the monitors to ensure a visible exposure anouncement from all over the room.

Rear side
The rear side of the trolley is completely cable free for an easy cleaning. This is especially important when the rear side is turned to the OR table side.

Handles
The shape and the height of the handles changed for improved maneuverability.

Monitors

Rotation
It is possible to rotate the two monitors independently one from the other. The trolley allows a maximal rotation of 30° clockwise and 180° counter clockwise with two locking positions on 0° and 180°.

For a safe parking position fold the two monitor.

Adaption of height (option)
It is possible to adapt the height of the monitors individually for a better and more ergonomic visibility.

Press the black button on the surface of the trolley and the monitors are moving up or down.

Surface of monitor trolley

Emotion - the onboard sound system
In some operation theatres it is common to listen to music during the procedures. It is possible to connect any MP3 player.

Note: An MP3 player is not included in the order.

Accessory management
The top of the monitor trolley contains several compartments for a clear management of accessories.

- Drawer for CD´s, DVD´s and the quick guide

- To press the reset button (in case of software problems) please open the drawer. You will find the button right beneath the keyboard.

- Pen holder, compartment for MP3 player and business card holder

- Network and video interfacing in two areas to ensure a tidy cable management. The left trolley side contains the connections for the video cables, the right trolley side contains the connections for network and the switch to WLAN.

Last Scene Hold (= LSH)

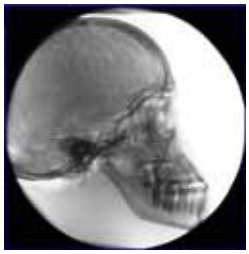
Of course it is still possible to save LSH by pressing F9 or via menue (*Patient > Save LSH Scene*). In addition to this it is now possible to save the last scene (the last up to 120 frames) by pressing the handswitch longer than 2 seconds. Hence the user doesn´t have to move between C-arm and monitor trolley during the examination when LSH is requested.

If the Handswitch is pressed less than 2 seconds the LIH (= last image hold) is saved.

Software:

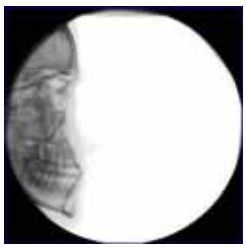
IQ optimization

EASY
EASY is a collection of special image processing features to ensure the best image quality:



With the existing systems the object had to be positioned correctly in the centre of the image intensifier as the densitiy of the object was measured in the centre.

In case the object was beyond the centre, there was a significant loss in image quality. This happened easily with small objects (e.g. wrist). To avoid the loss in image quality the *Stop* function was recommended. The user had to set a manual kV and mAs/mA value.



Now an online image analysis over the entire image is available. Regardsless where you place the object in the field of view the online image analysis automatically optimizes kV and mAs/mA values.

Local database
The capacity of the local database was increased significantly from 40.000 images before to 60.000 images now.

Basic and extended menu
The main and essential funcionalities in TC Examination and TC Viewer are always available. Only when the extended menu is selected, all details are visible. Basic users can concentrate on the main features in the basic menu, while the extended menu is the right choice during more demanding procedures.

The system starts up with a basic menu. By clicking on the icon *Basic / Extended* the user can change between the basic and extended menue.

TC Examination

Basic menu:

Extended menu:

TC Viewer

Basic menu:

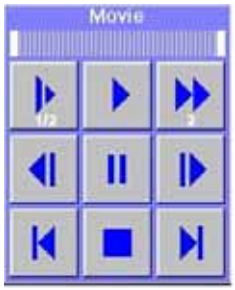
Extended menu:

<u>New subcard for movie handling</u>

An extended subcard for movie handling is available for TC Examination and TC Viewer.

TC Examination:

TC Viewer:



The icons for the movie handling only appear when the series is <u>not</u> saved yet (e.g. in continous fluoroscopy) and the option LSH (= Last Scene Hold) is available. LSH is included in the optional operating mode DCM and the option “Fluoro Loop / LSH”

Replay of scene in half acquisition frame rate

Replay of scene in real acquisition frame rate

Replay of scene in double acquisition frame rate

One image backwards

Pause. The run stops immediately. A restart would start with the next frame.

One image forward

Back to the previous scene

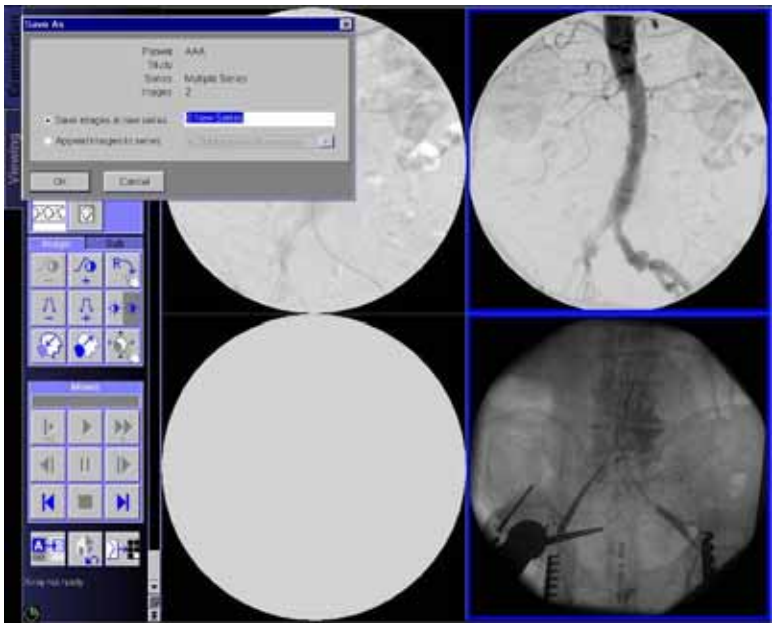
Stop. The run stops immediately. A restart would start with the first image of the scene.

Forward to the next scene

In a long series the first or last images might be of no use. Hence it is possible to set limits in order to review only the relevant part of it. Drag and drop the lines with the left mouse button.

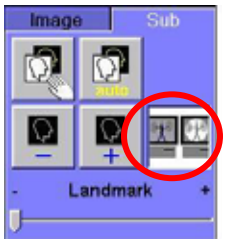
Cross series handling

In the past it was only possible to save single images out of one series in a new series. With the new ARCADIS generation it is now possible to collect single images out of different series of one patient in one new series.



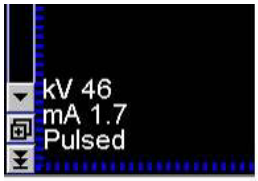
Change to an overview layout of more than one image, press *Ctrl* and select the required images with the left mouse button. Of course the selection is possible in 1:1 layout as well but it´s a bit inconvenient to scroll through the entire series image by image.

Note: When performing subtraction the *Sub/Native Dislplay* is automatically enabled. It is necessary to disable it in order to change to an overview layout.



Go to the menu bar, select *Patient* > *Save as…* and save the images.

Additional image information: kV, mAs, accession number
In addition to already existing information kV and mA values and the accession number are announced in the lower left corner of the image area in all task cards. The customer is able to get a much better awareness of the values, e.g. in comparison to other C-arms.



Annotation text
When adding annotation text to an image it is not necessary anymore to save it in a new series to keep the text. It is saved automatically without any additional action.

Off-line storage media

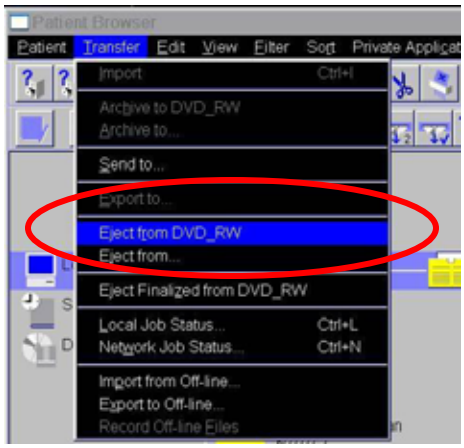
Burning CD and DVD
In addition to burning CD-R´s it is now possible to burn images onto DVD-R´s as well in order to get more data on one storage media. The off-line storage capacity is increased from 670 MB to 4.7 GB. This is especially important when having a lot of scenes per patient (e.g. in vascular surgery or electrophysiology).

Please keep in mind that only the operating modes continous and pulsed fluoroscopy are possible while burning CD or DVD. The speed of burning DVD´s is the same as burning CD´s. Hence it is recommended to burn at the end of the day or during a longer break. However, the big benefit is the fact that changing CD´s is not necessary any longer.

Note: Reading a DVD and the import of images from a DVD takes a while, too. It e.g. takes some time until the images are listed in the *Local Job Status*.

In general it is not possible to open the CD / DVD drive by just pressing the button at the front of the monitor trolley. And this might result in software problems. It is necessary to go to the browser and to activate *Eject from DVD_RW*.

Go to the *Patient Browser* and open the drive by selecting *Eject from DVD_RW* in the menu bar or in the icon list.



Eject from DVD_RW offers the possibility to add more images to the CD/DVD in a later burning session. *Eject Finalized from DVD_RW* means that the CD/DVD is finalized and it is not possible to burn it again. The finalization prozess takes some more time.

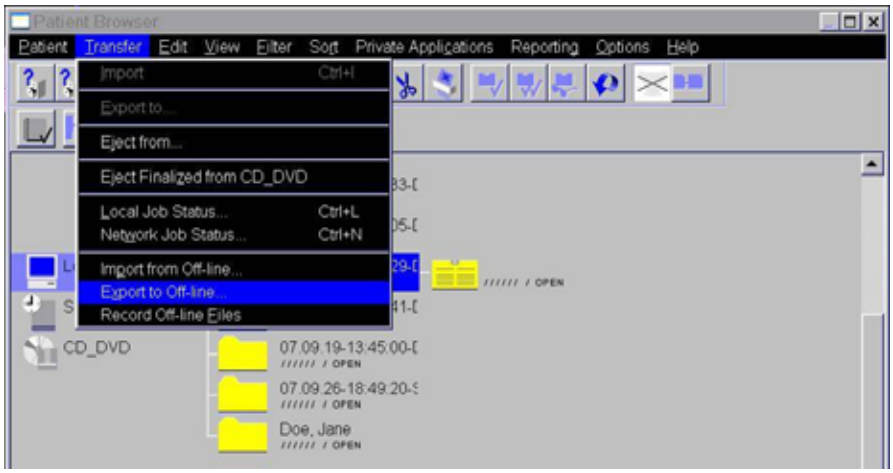
The reason to use finalization is to ensure the readability of the media. Without a finalization there might be problems.

USB support

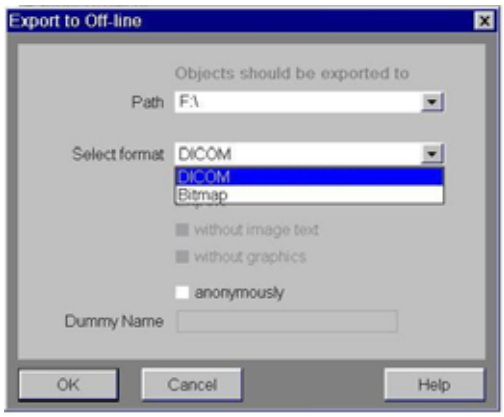
For a fast and easy data transfer ARCADIS allows a transfer of images to an USB stick.

Please connect the USB stick.

Go to the *Patient Browser* and select *Transfer* > *Export to Offline…*



The *Path* should be *F:*\ and it is possible to save the images in *Dicom* or *Bitmap*. In case of Dicom format you might anonymize the image and add a *Dummy Name*.



Click on okay and the images are saved on the USB stick.

Even an external USB-harddisk is technically possible and can be used by the service for a “Back-up and restore” for a large amount of images in case of e.g. a software installation.

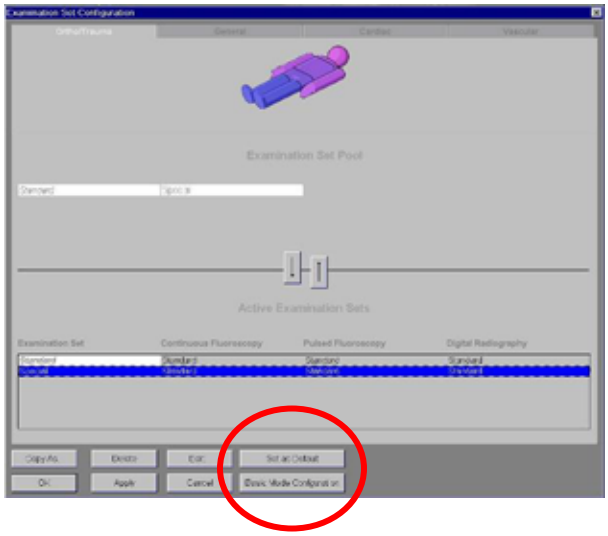
Only images are exported to USB, there is no Dicom viewer which is different from saving images on CD or DVD.

For the export of subtracted images to USB stick please refer to section “Subtraction and Roadmap”, p.16.

Examination Sets

A few things changed in the examination set configuration. As the system internally works completely different to former ARCADIS systems, examination sets copied from old systems will not work.

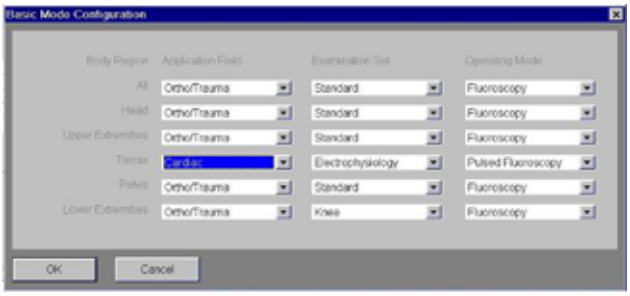
Default exam set configuration and basic mode configuration



Any examination set can be set as default examination set for a certain application field and a certain part of the body. Click on the examination set and click on *Set as Default*. When this application field and this part of the body is selected the new default examination set is shown as default.

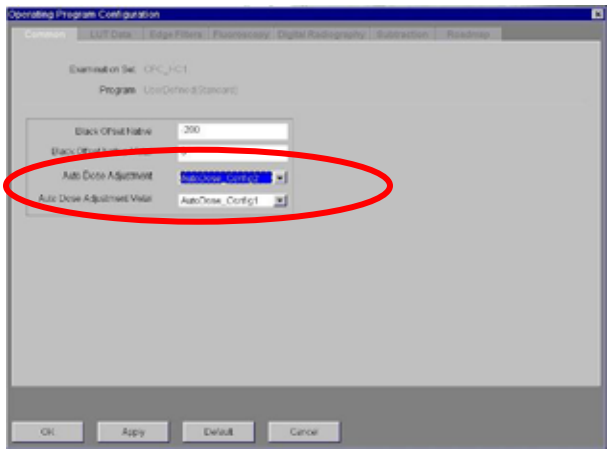
In *Basic Mode Configuration* it is possible to set a special *Application Field* together with an *Examination Set* and a special *Operating Mode* as default.

Example:



When TC Examination *Basic / Extended* is set to *Basic* menu and the body part *Thorax* is enabled ARCADIS immediately chooses the examination set *Cardiac* > *Electrophysiology* (not shown on screen) with the operating mode *Pulsed Fluoroscopy* (here with a pulse rate of 4 p/s).

Changes in *Operating Program Configuration*, taskcard *Common*



The *Auto Dose Adjustment* is a combination of parameters for image evaluation regarding e.g. contrast. The adjustment doesn´t influence the dose.

Auto Dose Adjustment usually is set to *AutoDose_Config1*. This adjustment is focusing on bones. In cardiac surgery it is set to *AutoDose_Config2*. This focuses to the skin edge and soft tissues more than to bones.

If somebody wants to see needles approaching the skin, *AutoDose_Config2* should be used. *AutoDose_Config6* is focusing even more to the skin, direct radiation is held low, but dose decreases and the bones may go dark. The other sets are for future applications (more experimental settings) and should not be used.

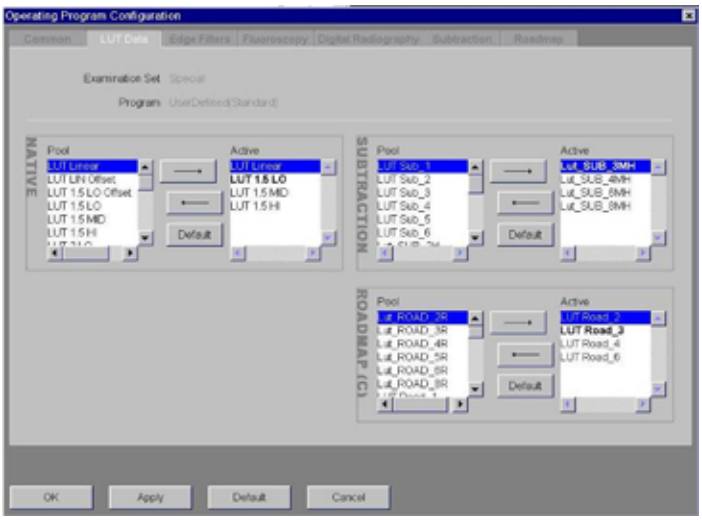
Auto Dose Adjustment Metal shows the setting when the metal function on ARCADIS Avantic is selected. Hence it is meaningless on ARCADIS Varic and Orbic.

Look up tables

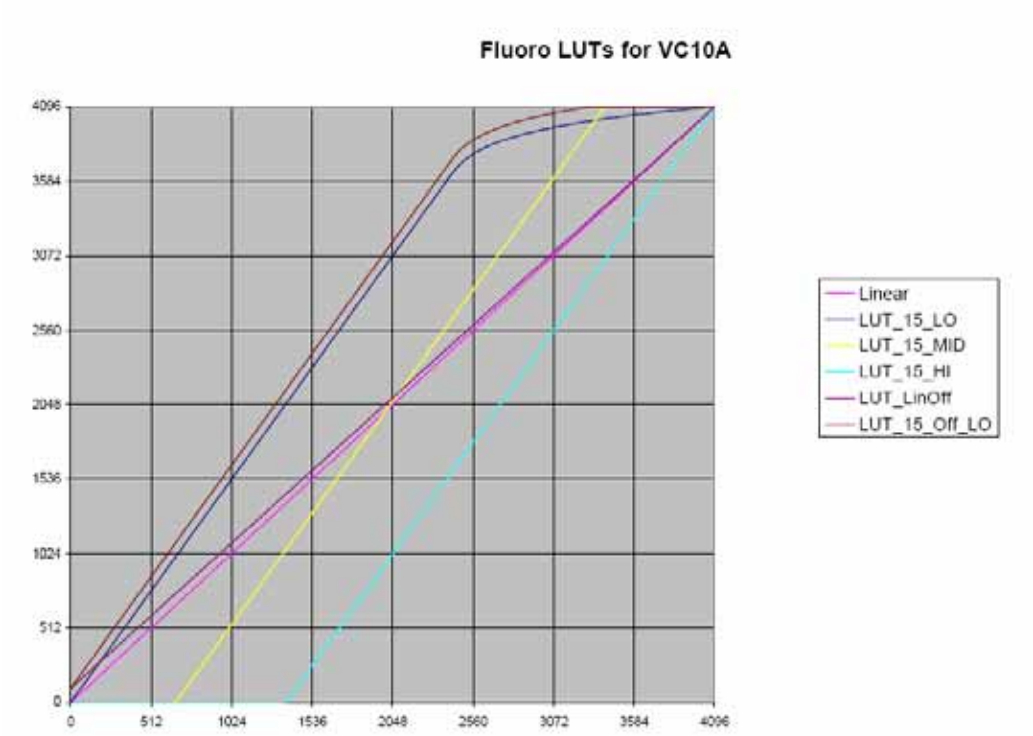
The automatic contrast enhancement calculates a nonlinear LUT, providing a constant average brightness. Therefore in almost all cases it should not be necessary to choose any other LUT than the standard linear one. In few cases it may be helpful to use the *LUT_1.5_Low*. This additionally increases contrast in the darker areas and cuts off the bright areas of the image. Any other LUT is expected not to be needed.

The LUT´s used up to now may give unexpected results and should not be used. For subtraction and roadmap the LUT´s are the same as before.

The labelling of the LUT´s changed from a more technical to a more dose oriented name.



See the shape of the curve in the following tables:



The software VC10A uses new Viewer LUTs for the Fluoro and DR mode, however, the LUT´s of the installed base are still available on the systems of the new generation. The Sub modes use same LUTs than before.

The Fluoro LUTs now are: *Linear, 1.5_LO, 1.5_MID* and *1.5_HI.* 1.5 means a contrast enhancement of 1.5 compared with the linear LUT. LO, MID and HI means focusing on the darker, middle and brighter part of the image.

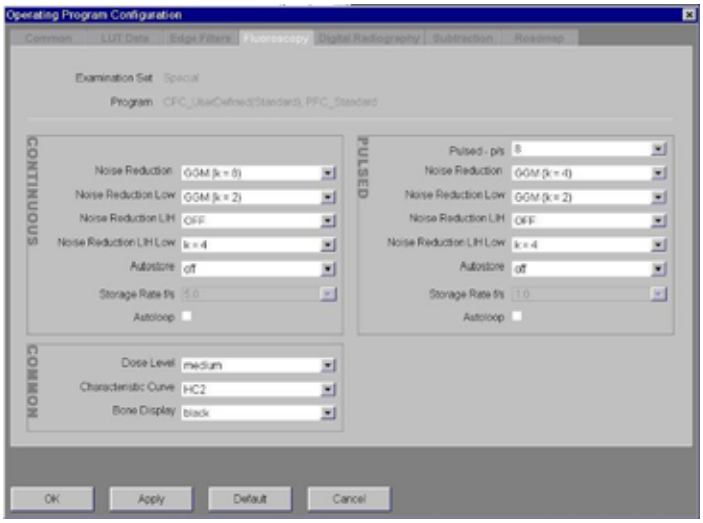
Before applying these LUTs an automatic contrast enhancement is performed. In most cases this needs no further enhancement. The Linear LUT will be sufficient. In special cases the 30% enhancement of the *1.5_xx LUT*s may be helpful. However, the *LUT 1.5_LO* will be the single one really to be used. This is due to the characteristics of the X-ray image which has most

information in the darker areas. Only if a needle going to skin should be shown, the others may be beneficial, but in most of these cases we may need a different image analysis parameter setting for dose and image control more than the LUT, as I.I. blurring is not reduced by LUTs.

There are also the LUTs *Linear Offset* and *1.5_LO Offset.* These increase the black level about 3% if needed. Images look less dark with these LUTs.

Changes in the operating modes continous and pulsed fluoroscopy

Different noise reduction values can be selected for fluoroscopy (continous or pulsed) and for the LIH shown in TC Examination during the procedure.



The K-factor for LIH (*Noise Reduction* and *Noise Reduction Low*) and live image (*Noise Reduction LIH* and *Noise Reduction LIH Low*) can be adjusted independantly.

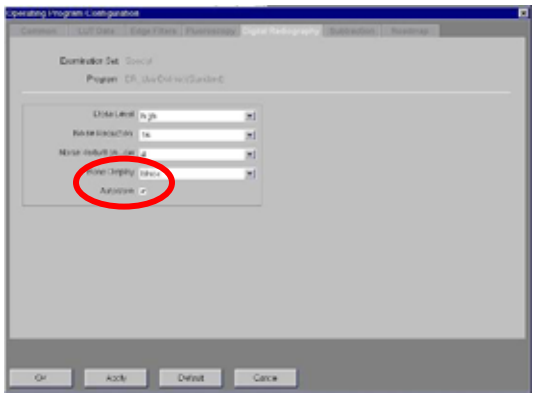
In general the k-factor for the LIH should be higher than the one for the live image. This results in less moving artefacts during fluoroscopy and a better image quality on LIH and saved images.

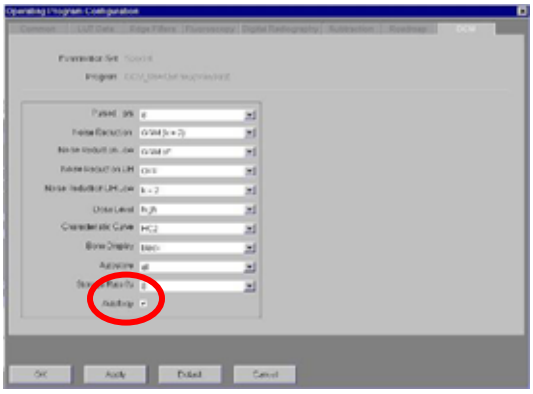
Due to some hardware limitations at the moment only a k-factor of up to 4 is possible for *Noise Reduction LIH* and *Noise Reduction LIH Low*. Hence different values only make sense with a k-factor of less the 4 for *Noise Reduction* and *Noise Reduction Low*.

In case of a k-factor of more than 4 for the live image the recommendation for *Noise Reduction LIH* and *Noise Reduction LIH Low* is *Off*. This results in the same k-factor for both image displays.

DR and DCM storage

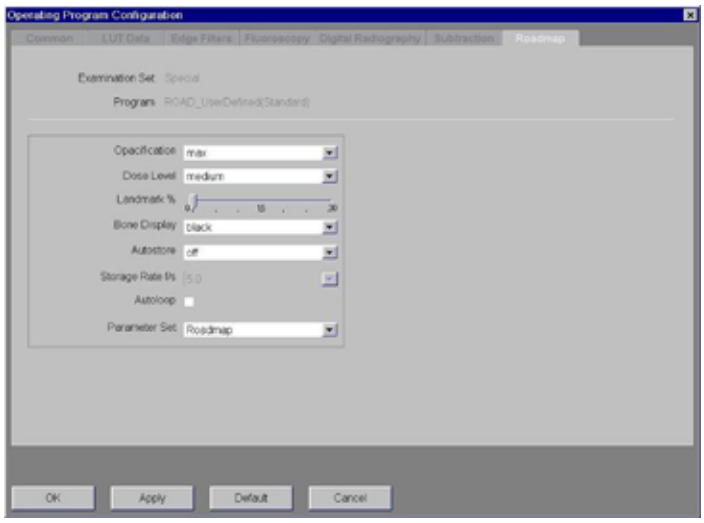
In general DR single (Digital Radiography) images and DCM series (Digital Cine Mode) are saved automatically and it was not possible to disable this on the previous ARCADIS systems. But some customers prefer not to save them. They use e.g. DR instead of fluoroscopy to ensure a short exposure time. Or they use DCM because of the high power. In both cases it is not necessary to save all images.





This was the reason to implement a new line for *Autostore*. If there is no need to save all images disable the checkbox. As default the *Autostore* function is enabled.

Roadmap
New in taskcard *Roadmap* is the line for *Parameter Set*.



Parameter Set refers to different displays of road map images. However, at the moment only the known *Roadmap* display is available.

Autoloop
When autoloop (e.g. in subtraction) is stopped with the button on the C-arm, not the image of maximal opacification is shown as it was with the previous ARCADIS systems but the scene stops immediately and TC *Viewer* shows the image where the run was interrupted.

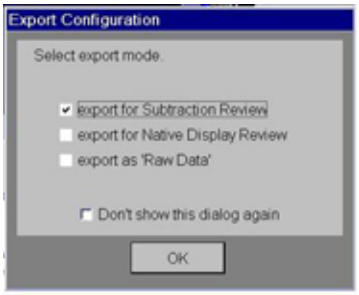
Sub and Roadmap

Roadmap
The image with the maximal opacification (or minimal) is accessible even after an operating mode change or a change of the zoom level (and return to the previous level).

With ARCADIS systems of the installed base it happenend from time to time that another operating mode was released accidentally and roadmapping on the just created subtracted image was not possible anymore.

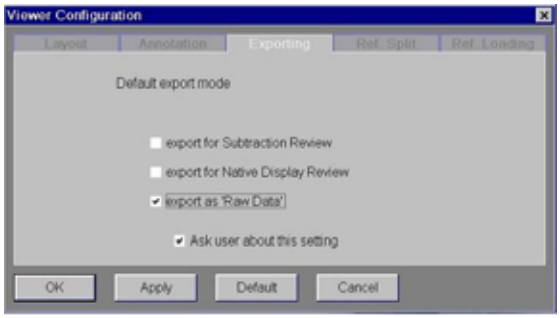
If a complete new roadmap is required press the button on the basic system for operating mode Road Map twice. The icon for roadmap disappears and the user can start with a new injection of contrast agent.

Sending subtracted or native images to PACS or exporting subtracted images to USB
ARCADIS now offers several possibilities to transfer images directly to PACS or USB stick.



- *export for Subtraction Review* (pixel-subtracted data): The images are sent in subtracted display. It is not possible anymore to review them in a native display.
- *export for Native Display Review* (native data): The images are sent in native display. It is not possible to review them in subtracted display.
- *export as 'Raw Data'*: If the PACS or workstation offers the functionality to postprocess subtracted images this option should be selected.

Default configuration for the export of subtracted images
The default configuration can be changed. Please go to *Options* > *Configuration* > *Viewer* > tabcard *Exporting*, select the required line and confirm with *OK*.



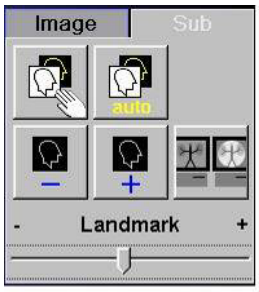
Please make sure that the line *Ask user about this setting* is not disabled accidentally since during a live procedure there would be no choice for the export mode anymore.

Saving subtracted images in a native display

ARCADIS still doesn´t offer the possibility to save images in a native display in the local database. Therefore there is no direct way to get one or more native images out of a subtraction run into TC *References* or to print it out. However, some customers would like to have exactly this in order to get e.g. more information about anatomy.

There are two different recommendations.

<u>The use of *Landmark:*</u>
The easiest way is to use landmark. Go to sub taskcard *Sub* in TC *Viewer* and change the *Landmark* bar (maximum is 30 %).

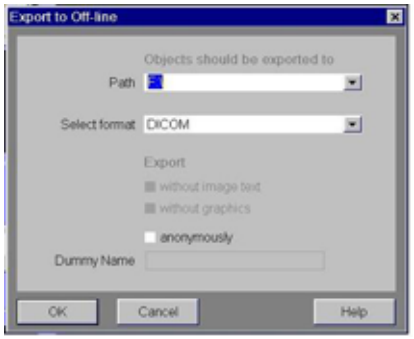


A special amount of the anatomical background is added to the image in TC *Viewer.* Now copy the image to TC *References* or send it to TC *Filming*.

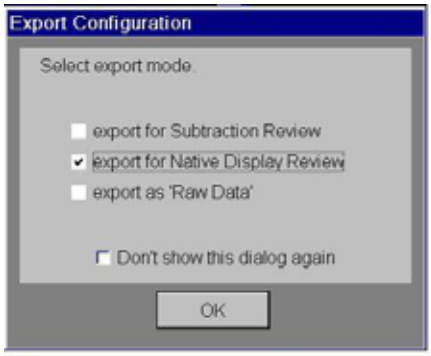
One difference to the former ARCADIS systems is that the image quality of landmark is better than before. The second difference is that *Landmark* was not transferred with the image to TC *References*. In TC *References* the completely subtracted image was displayed.

<u>*Export to Offline* and *Import from Offline*</u>
Another possbility is the export of images to USB and reimport them into ARCADIS.

After performing a subtraction scene open TC *Viewer*. Connect an USB stick to the monitor trolley and go to *Transfer* > *Export to Offline*. Select *F:*\ and *DICOM* format (see chapter “USB support”, p.10) and confirm with *OK*.

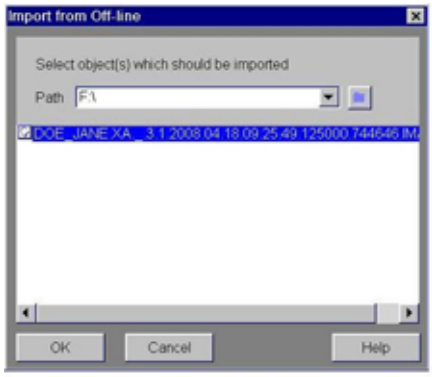


Select the native display and again confirm with *OK*.

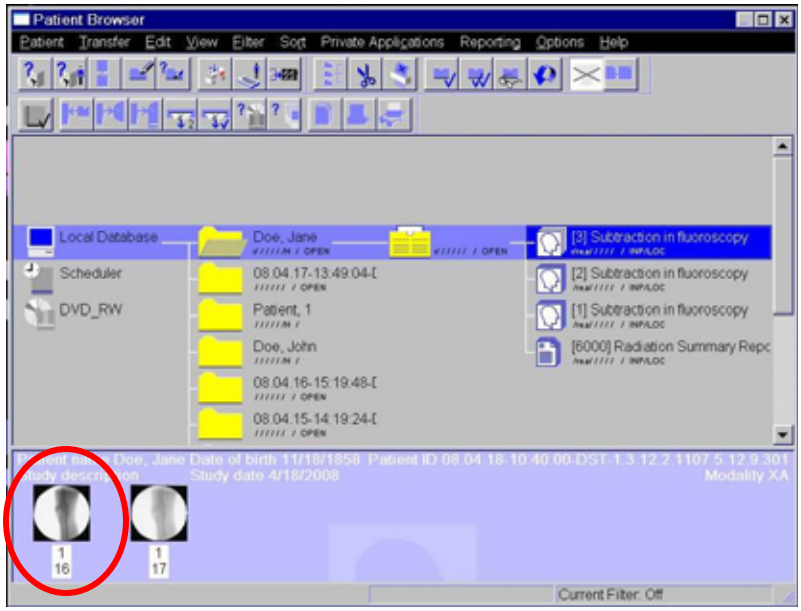


The entire series is exported in native display to the USB stick.

The next step is to reimport the image back to ARCADIS. Go to *Transfer* > *Import from Offline*, select *F:*\, select the images you´ve just exported to the still connected USB stick and click on *OK*.



Now you can find the scene in the local database in the same series than the original subtraction run. It is the one with one image less (here 16 images per scene) than the original scene as there is no mask.

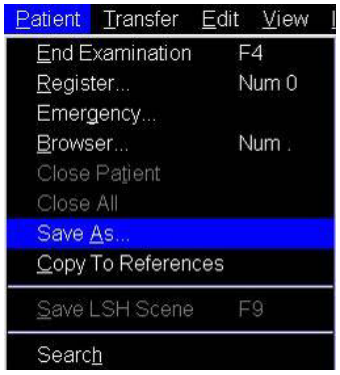


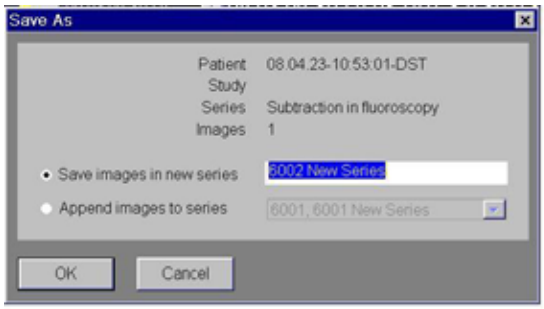
Load them into TC *Viewer* and you can see them in native display.

Note: This workaround is not possible on VB 13C images imported into an ARCADIS system with VC10A SW.

Saving single images in native display

It is possible to save single images out of a series as well, but you have to save them first in a special, new series and reopen them into the *Viewer*. Select the image(s) with *Ctrl* + left mouse button and save them in a new series.

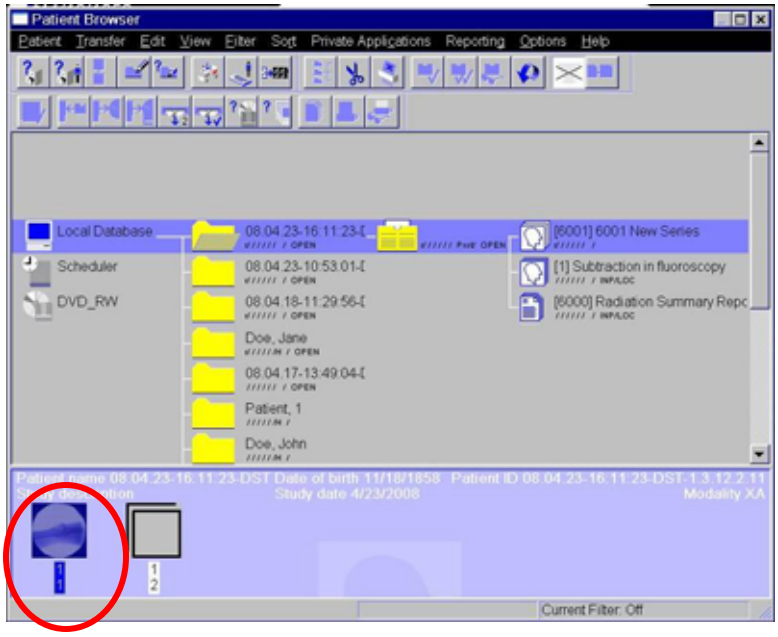




Note: The icon for *Save as…* was removed from *TC Viewer* in order to reduce the number of icons for a clear user interface.

Then go to the local database, send the new series with *Export to Offline…* to a connected USB stick and reimport it (see *Export to Offline* and *Import from Offline*, p.18).

Select the image(s) in the local database and load it to TC *Viewer*. You can find it/them in the *New Series*.



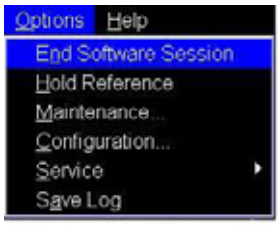
The image(s) appear in native display.

Shut down

As it was recommended before hybernation should be used for shut down to ensure a fast reboot. Switch off the system easily over the button on the monitor trolley. After 15 sessions the system shuts down completely automatically.

Only when having been in the *Local Service* or in case of general performance problems you should shut down the system over the software. The dialog slightly changed.

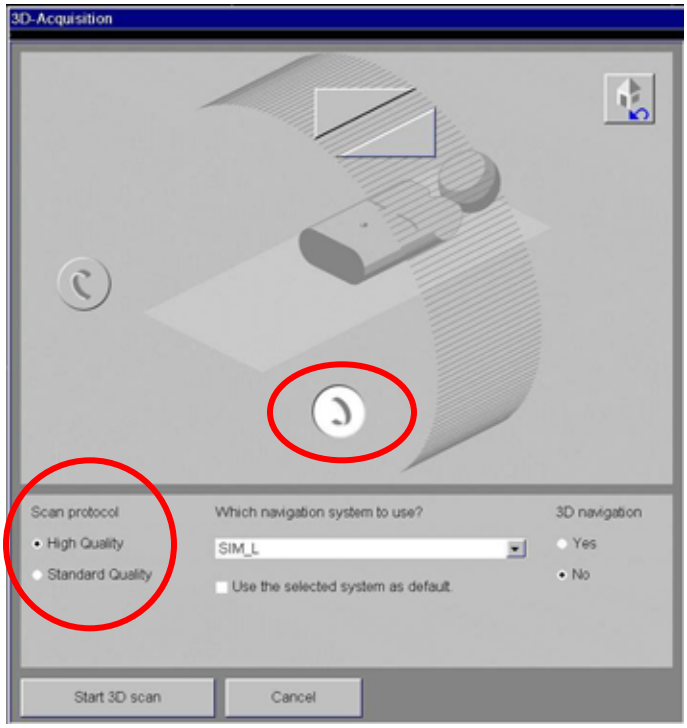
Go to *Options* > *End Software Session*



The following *System Message* appears and you could select whether to select a *Shutdown* or a *Restart*.

ARCADIS Orbic 3D

Improved 3D dialog
Two settings were sometimes leading to misunderstandings – the position of the C-arm in relation to the patient table and the selection of the scan protocol.



Position of the C-arm in relation to the table:

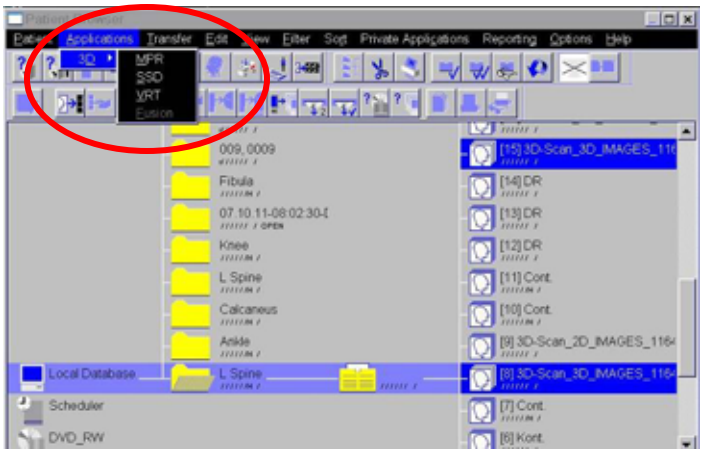
Click on one of the C-arm position icons. There´s no selection of “left” or “right” necessary anymore which was a bit confusing before.

Scan protocol:

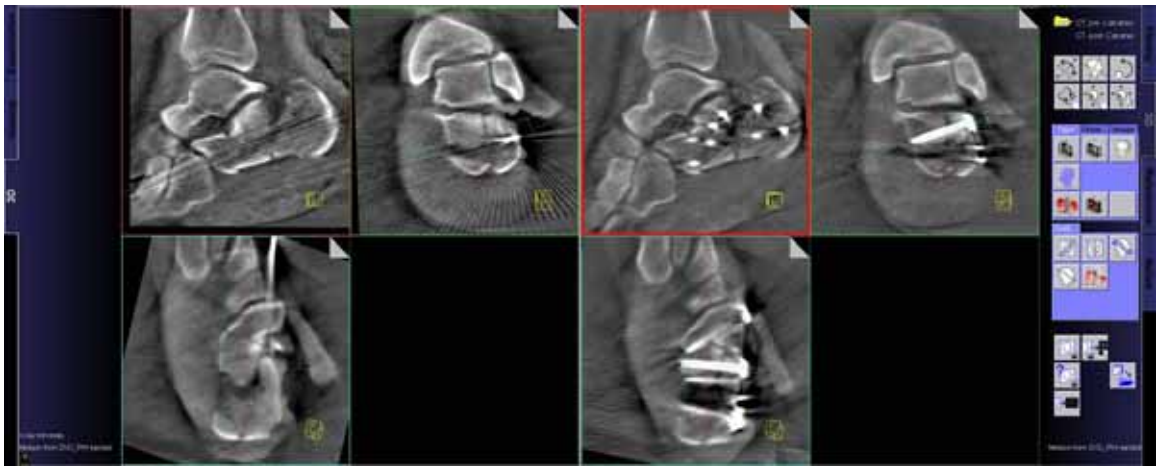
A *High Quality* scan (the former *Slow* scan) is a scan of 100 images within 60 seconds, the *Standard Quality* scan (the former *Fast* scan) is a scan of 50 images. Previously a few customers mixed it up. *Fast* sounded somehow better than *Slow* and therefore was thought as the scan with the better image quality.

3D dual monitor support (option)
For comparison purposes, e.g. pre- and intra-interventional data-sets can be loaded. Synchronized scrolling through images and moving/setting the lines simultaneously on left and right monitor is facilitated.

Open the *Patient Browser* and select two different 3D scans (*3D-scan_3D-images)* with *Ctrl* and the left mouse button. Now select *Applications* > *3D* > *MPR* or any other type. If the type *MPR* is requested you can click on a special *MPR* icon as well.



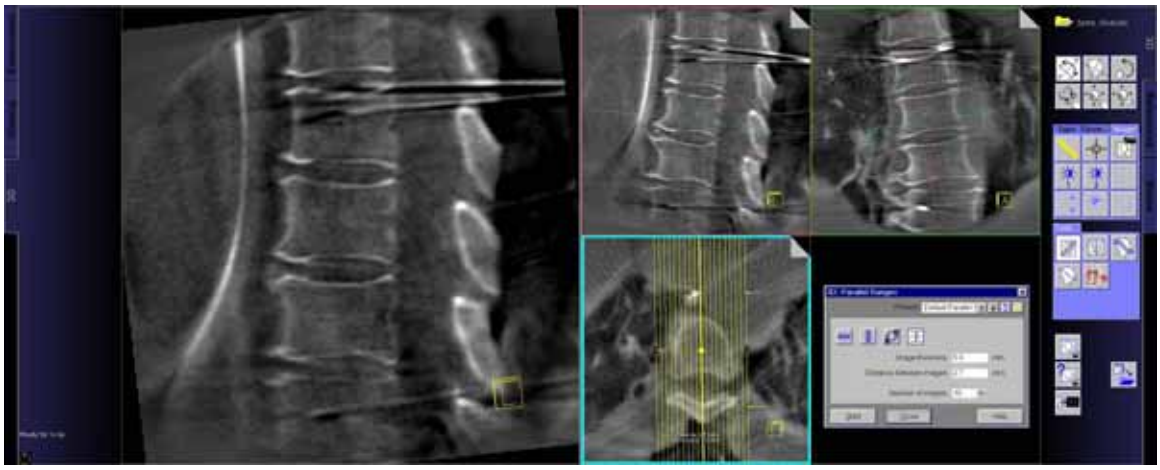
Both series are loaded and diplayed in the same position.



The result of any action (e.g. scrolling through images, setting the lines) is now shown simultaneously on both monitors and allows a direct comparison of e.g. pre- and intraoperative scans.

Note: In case the difference of the position of the two scans is more than approximately 1.5 cm the mapping of the two scans is not possible.

Note: When the option “Dual monitor” is available the content of the fourth segment during postprocessing in general is *not* shown in the right 3D task card but on the left monitor.

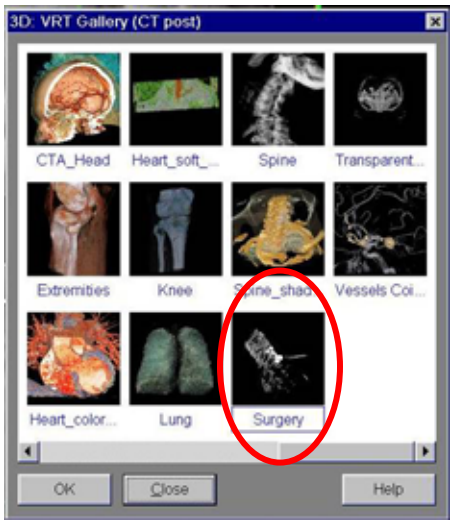


Display of 3D volume in VRT (option)
In addition to MPR (multiplanar reconstruction), MPR thick and SSD (surface shaded display) VRT (volume rendering technique) is available in order to display volumes. It allows an easy orientation in the 3D data set.

VRT

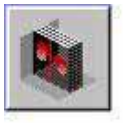
VRT shows the entire object as a volume. Click on this icon and the data set is shown as a volume. You can change the window (with the middle mouse button) to get an optimized display.

If you click on VRT with the right mouse button the VRT gallery pops up with a considerable selection of different image display setting.



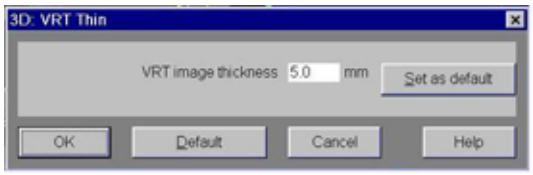
For ARCADIS Orbic 3D *Surgery* shows the best image quality on the 3D images.

VRT thin



VRT thin is a variation of the volume rendering technique. It shows the volume of only one slice of the volume.

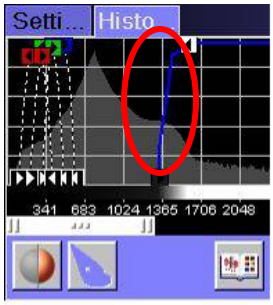
By clicking with the right mouse button on *VERT thin* it is possible to change the thickness of the slice.



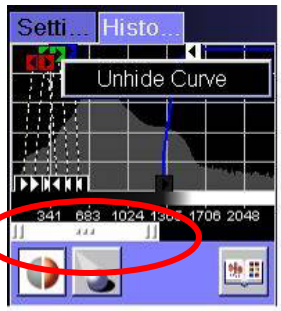
If the thickness should be changed in general please enter another value (mm) and click on *Set as default*.

Histogram

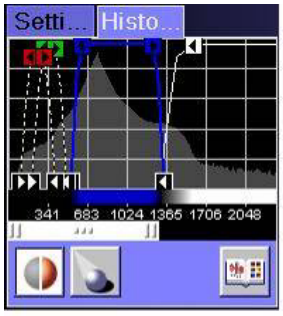
In subcard *Histogram* it is possible to change the dislplay of the VRT images. Drag the blue line in order to get another window on the VRT image.



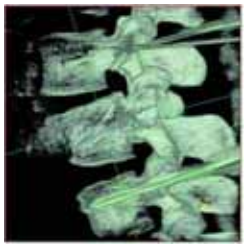
If you want to add colour to an image first move the white bar to the left.



Click with the right mouse button on one of the colour points and select *Unhide Curve*.

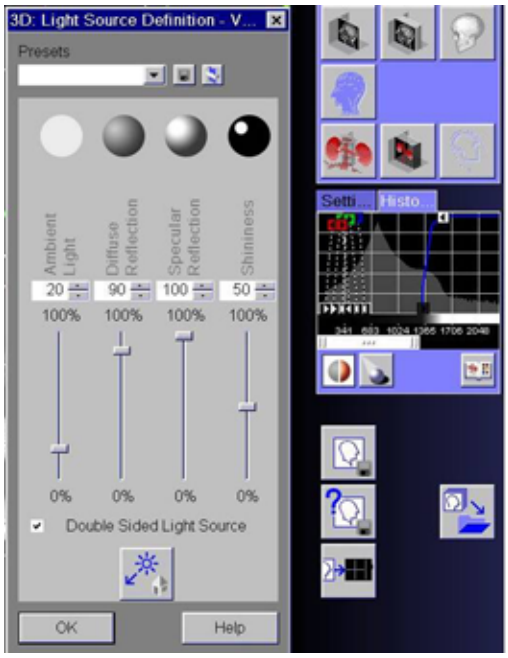


Drag the new blue line to the right and add colour to the VRT image.



Shading

The impression and illumination of the VRT image can be changed. Click on the icon for *Shading*. In addition to this icon you can click on *Open Light Source* and the following box appears.



Drag the different light bars and look at the change in your image.

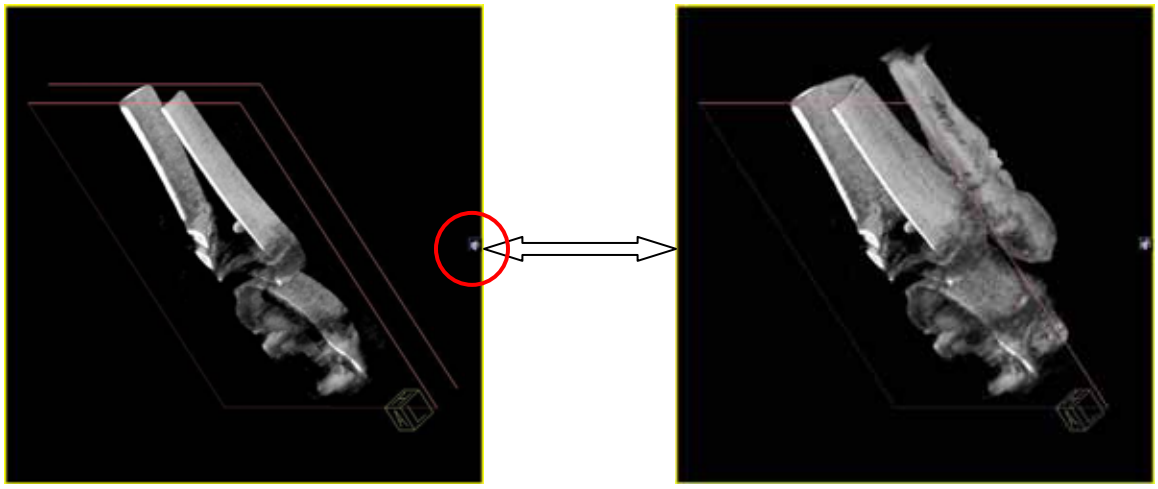
Setting

The subcard *Settings* contains an additional icon – the *Free View*. On ARCADIS this function can only be selected on VRT or SSD images.

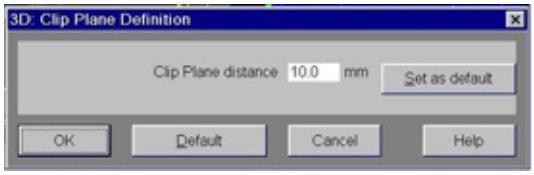
Free View enables two different features

- Rotation of the volume: The mouse has to be positioned outside the red frame in the image. Rotate the volume with the left mouse button.
- Dragging a clip plane: Position the mouse inside the red frame in the image. Drag the clip plane through the data cube with the left mouse button and you get an inside view of the anatomy of the object.

It is possible to change between only one or two clip planes by pressing the little icon on the right side of the left monitor.



If you click with the right mouse button on *Free View* you get the possibility to change the *Clip Plane distance* and set a new value as standard with *Set as default*.



The default thickness of the slice is 10 mm.

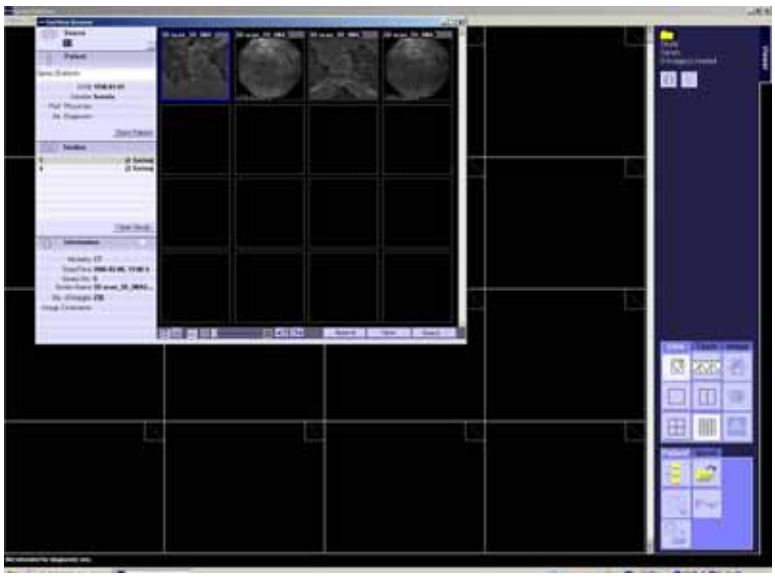
Close patient
An additional icon is available to close the patient in TC 3D.

Dicom Viewer "*syngo* fastView"

A few things in the Dicom viewer changed, however, the features are mainly the same.

Load the images into the viewer
Insert the CD into your computer and open the "exe"- file with a doubleclick.

Confirm with *OK* and the content of the CD is shown.

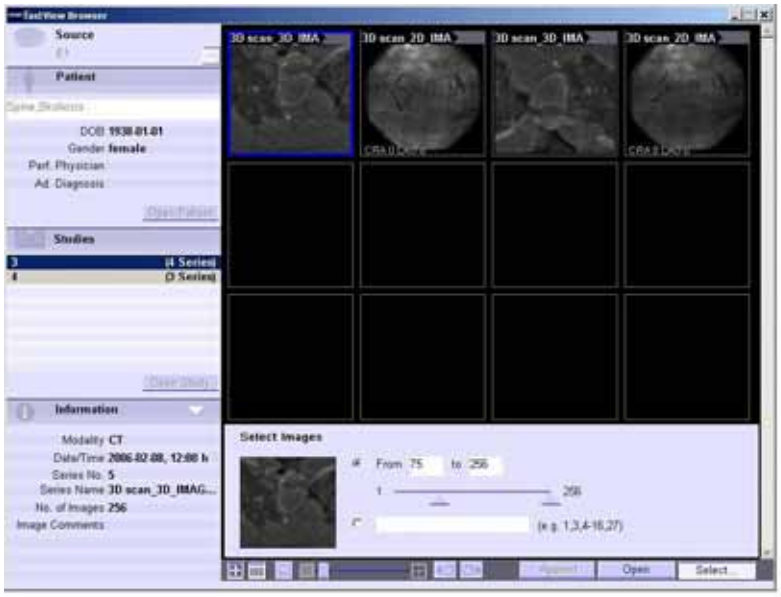


With the old Dicom viewer the number of images loaded into the viewer was limited. It was not possible to load particular long scenes. Now the capacity is much higher.

In the browser it is possible to load

- the entire patient: Click on *Open Patient*
- a study: Select the study and click on *Open Study*
- a single series: Select the series and click on *Open*
- another series (e.g. out of another study) in addition to an already loaded series: Click on another study, select the series and click on *Append*

- one or more image(s) out of a series: Click on *Select…* The following box appears:



Change the range of image(s) or enter the requested image into the designated box and click on *Open*.

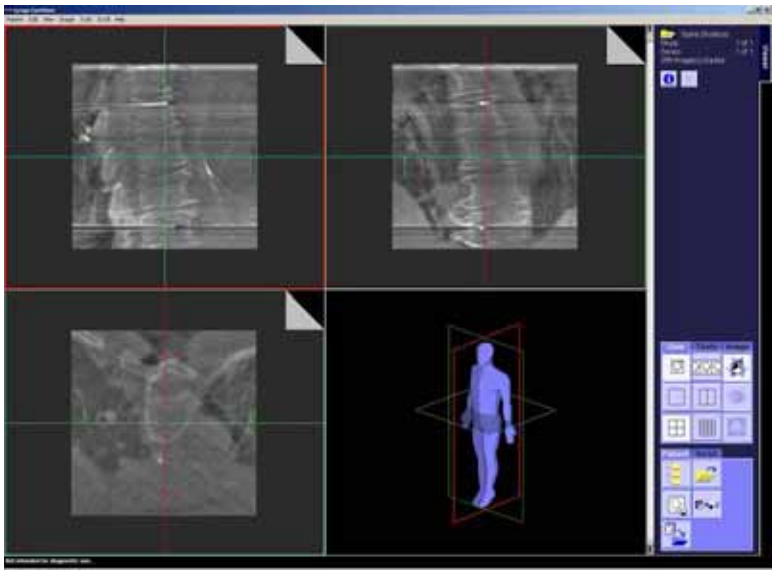
Review of 3D images

Another new feature is the possibility to show 3D images and to scroll through them. This is important for ARCADIS Orbic 3D users.

Doubleclick on the 3D images you want to open. First the 256 single MPR´s are loaded into the Viewer.

Select the icon for 3D display and the three planes (sagittal, coronal and transversal) are shown.

The colour of the box corresponds to the colour of the plane anounced in the sketch.



A limited processing of the 3D scan images is now possible. It is possible to scroll through the single planes and to change the levels within the cube. It is not possible to rotate the reference lines though.

Movie

When a movie is loaded into the viewer automatically a new box with movie controll functions is displayed.

Distance measurement

On 3D MPR´s of Orbic 3D a tool for distance measurement is available.

Improved serviceability

Display of UPS
In case of an accidental current interruption the UPS ensures a correct shut down of the software. At the front cover of the monitor trolley you can find a display for the UPS = (uninterrupted power supply). A battery failure or a low battery charge can be detected easily.

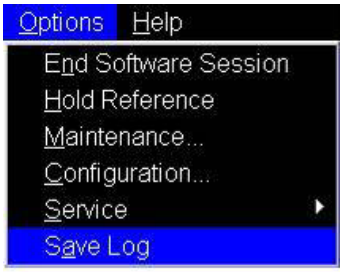
The left scale shows the charging condition of the battery, the right scale shows the level of capacity of the UPS.

Cable connection between C-arm and monitor trolley:
The connection between C-arm and monitor trolley at the side of the trolley can easily be opened in order to enable a quick and simple in-house exchange. A customer´s visit by a service engineer is not necessary, the replacement can be performed by the hospital inhouse technician.

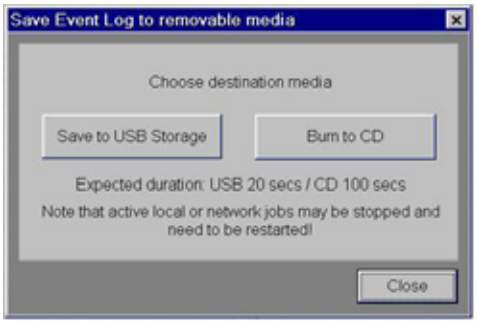
Easy storage of save logs
In case of any unusual behaviour or error it is helpful for the service to have the event logs to analyse what happened. In general the event logs are copied out of the *Local Service* but they are now easily accessible without any password. Even the customer is able to save the event logs on CD or USB and can send them to the service which allows a fast and efficient service support.

The software overwrites event logs after a while, therefore saving event logs directly after an incident (e.g. by customers) is especially important to solve sporadic problems which are not reproducible in the factory.

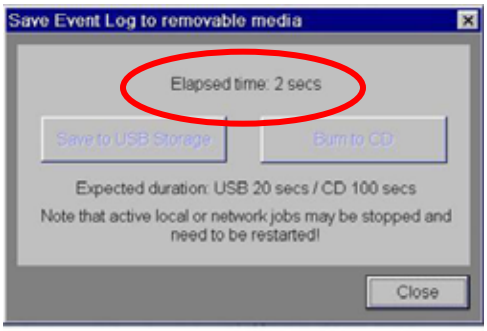
Go to *Options* > *Save Log*. This is possible in any tabcard.



The following dialog box appears:



Insert a CD or connect a USB stick and choose the destination media. The most important event logs are copied to the storage media which takes about 10 to 20 seconds. The process is shown on the screen.

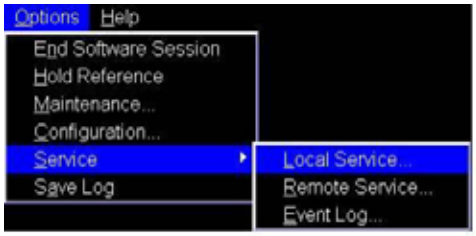


The complete event logs can still be copied by the service engineer in the local service. But this would take much more time and wouldn´t be accepted during an examination as radiation is blocked during the time of saving.

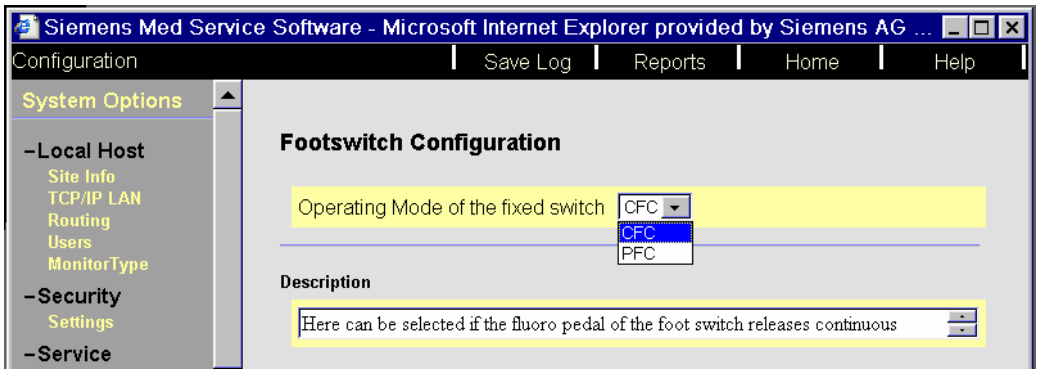
Adjustable footswitch setup

Some customer prefer pulsed fluoroscopy instead of continous fluoroscopy on the fixed footswitch e.g. in order to save dose by using a low pulse rate (configurable in the examination set configuration).

To change to another standard footswitch setup please go to *Options* > *Local Service*



Enter the service key > *OK* > *Configuration* > *Footswitch* and select the the operating mode for the fixed switch.



Note: In case *PFC* is selected for the left footswitch, please change the *Basic Mode Configuration* (see p. 12) to PFC as well. If not, continous fluoroscopy would be selected automatically in the *Basic* Mode in *TC Examination* (see chapter *Basic Mode Configuration,* p.12)